



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

CONCHOLOGIA HONGKONGENSIS.

BY T. W. EASTLAKE.

The recent publications of Dr. O. F. von Möllendorff and Père Heude, S. J., have thrown a new light on the conchology of the Yangtze-kiang River, and some of the provinces of Southern China, in a very welcome manner. The land, whose conchology found its pioneers in Swinhoe and Fortune, is becoming daily better known to the scientists of Europe. Indomitable energy and steady perseverance on the one hand, together with the keen eye of the scientific traveler on the other, are establishing the zoology of China—immense as is that country—on a firm scientific basis. Still there is a wide field for investigation. The transition stages of the zoology of Central Asia into that of Western China, have yet to be carefully examined. Again, some branches have been almost totally neglected. The entomology of China is only known through the medium of Donovan's "Insects of China," a work which, at present, has but little more scientific value than that of a child's picture-book. Until recently, conchology was still worse represented. A few remarks in the itineraries of passing scientists, a chapter or two in the chronicles of occasional expeditions, a short paper in the transactions of zoological societies—these were the only sources from which any knowledge of the conchology of China could be gleaned.

Under these circumstances, the publication of the "*Mémoires concernant l'Histoire Naturelle de l'Empire Chinois*," is heartily welcome, and great credit is due to Père Heude for his "*Notes sur les Molluscs de la Vallée du Fleuve Bleu*." Still one cannot refrain from regretting that the Rev. Father has undertaken such a work without a thorough knowledge of conchology itself—a neglect which is strongly apparent in the occasional confusion of similar genera, and the application of new names to old and well-known species. In this manner, no less than seven of Père Heude's *Clausiliæ* resolve themselves into varieties of *Clausilia aculus*, Benson, originally found in the Chusan Islands by Swinhoe, and later at Kiu-kiang by von Möllendorff. Père Heude's work adds over one hundred new species to the land shells of the Yangtze-kiang.

Of far greater scientific value are Dr. von Möllendorff's papers, which have appeared in the publications of the "Malakozologische Gesellschaft," of Germany, and in the Transactions of the Bengal Branch of the Royal Asiatic Society. Von Möllendorff is a thorough scientist, and his new work on the "Conchology of Southern China" (shortly to appear) promises to be indispensable as a text-book.

It is remarkable that the Island of Hongkong should have produced so many indigenous species. A British possession for more than thirty years, hardly one scientific expedition has touched the shores of this "barren rock in the ocean," without discovering a new species. Of late years, Drs. von Möllendorff, Hungerford, and the writer, have carefully gone over the greater part of the island, not only discovering new species, but rediscovering others which had disappeared since Stimpson's visit to Hongkong—nearly thirty years ago.

There are only a very few places where shells are to be found, as the larger part of the island consists of naked rocks, or is sparsely covered by *Gleichenia dichotoma*—a fern which is a sure indication of the absence of terrestrial mollusca. In the valleys, however, vegetation is luxuriant, and it is in these places that most of the shells are to be found. The dense woods of Little Hongkong (a Chinese village about 6 miles from the colony), and the little valley near Sheko (10 miles from the colony), are favorite resorts for collectors. Curiously enough, one of the highest peaks on the island, known as High West (1608') is the only place where some of the rarest species are to be found, in especial *Helix pulvinaris*, Gould, and *Cyclotus Chinensis*, Pfeiffer. The whole eastern side is covered with a dense growth of small ficus, acanthaceæ, and orchidaceous plants, and these, protected from the violence of the northeast monsoon, form a favorite shelter for the mollusca. Unluckily, the peak is only accessible from the south, and thus almost the entire eastern side is beyond reach. Still, one can descend safely thirty or forty yards below the peak, although great precaution is necessary, for granite boulders abound, and the slippery, as well as insecure footing these afford, renders a greater descent impossible.

The following is a rough list of the land snails found on the island :—

Cyclophorus exaltatus, Pfeiffer

Little Hongkong.

This is the commonest species of the Cyclostomidæ, and is not confined to the island, having been found by the writer some distance in the interior of the Kwang-tung province. Found in Hongkong by Fortune; later by E. von Martens. Reeve, in his *Conchologia Iconica* confounds *C. exaltatus* with *C. volvulus* (*lituus*) from Siam. That they resemble each other is true, but *C. exaltatus* is always smaller, the shell is thinner and without a ridge about the umbilicus. Closely related to this species is *C. Martensianus*, v. Mlldff., found at Kiu-kiang by von Möllendorff and Père Heude; by the writer at the Yung-fu monastery, Fukien province. Cf. Jahrb. I, 1874, p. 78; II, 1875, p. 120. E. von Martens, *ibid.*, p. 127.

Cyclophorus pellicosta, von Möllendorff.

High West.

Originally described from the Lo-foo-shan, a range of mountains near Canton City. Rare.

Cyclophorus trichophorus (*Craspedotropis*), v. Mlldff.

Little Hongkong

Described originally from the Lo-foo-shan, near the monastery of Washau. Since found by Dr. von Möllendorff at Ding-hu-shan (Kwang-tung province), and at Little Hongkong by the writer.

Cyclophorus (*Leptopomoides*) **cuticosta**, von Mlldff.

Found first in Hongkong by Drs. von Möllendorff and Hungerford, again at Tong-chow, not far from Macao, by Dr. Hungerford and the writer; finally, near the monastery of Yung-fu, in the Fukien province, by the writer.

Cyclotus Chinensis, Pfeiffer.

High West.

Had disappeared since 1850; rediscovered by Dr. von Möllendorff.

Alycaeus pi'ula, Gould.

For many years this shell was supposed to have disappeared from Hongkong, but it was the writer's good fortune to find a solitary specimen on High West (July 16, 1882), a description of which will shortly be published by Dr. von Möllendorff. E. von Martens (Jahr. II, 1875, p. 127), writes that the species is not known to him either through an engraving or any specimen. It is closely allied to *Alycaeus Kobeltianus*, found by von Möllendorff at Kin-kiang.

Paxillus tantillus, Gould.

This species has never been found since Stimpson's visit to the island. It may, however, exist in the woods near Little Hongkong.

Helicina Hungerfordiana, von Mlldff.

Found at High West (Hongkong) by Dr. Hungerford, Dr. von Möllendorff, and the writer; at Tung-chow (near Macao) by Dr. Hungerford and self.

Helicarion imperator, Gould.

Sheko and Little Hongkong.

In 1875 only five specimens were known in Europe. Confined to Hongkong.

Helix similis, Ferussac.

Common.

H. similis, Fer. Prod., 1821; **H. Hongkongensis**, Desh.; **H. obscura**, Desh.

There are evidently two varieties of this shell in Hongkong. The larger approaches somewhat *H. ravida*, Benson. Deshayes' description of *H. Hongkongensis* proves that he was unacquainted with the latter variety.

Helix Gerlachi, von Mlldff.

High West.

Originally described from the Lo-foo-shan.

Helix xanthoderma, von Mlldff.

Sheko.

One of the rarest and largest shells of the island. Indigenous to Hongkong.

Helix (Corilla) pulvinaris, Gould.

High West.

Exception may be taken to the clause of the description "dentibus extus non conspicuis," as the teeth are distinctly visible through the aperture, as well as through the delicate shell itself. One dead specimen picked up on the mainland opposite to the island, considerably exceeded the size indicated by Gould.

Helix cicatricosa, Müller.

Hongkong.

Originally from the Lo-foo-shan, now to be found in the Botanical Gardens of Hongkong, whither it has evidently been transplanted.

Helix trisinuata, Martens.

Sheko.

Very rare. On the opposite coast, about seven miles from the island, the writer found a *Helix*, which, though closely connected with *H. trisinuata*, yet presented striking peculiarities. This has been named *H. Eastlakeana* by Dr. von Möllendorff, for a description of which see the "Jahrbücher der Malakozoologischen Gesellschaft," 1881. The described *Helix* is still unique.

Helix, nova species, undescribed.

High West.

Helix (*ruficrissa*, von Mlldff.), nova species, undescribed.

Little Hongkong.

Microcystis Schmackeriana, von Mlldff.

Found in Hongkong (near Aberdeen), by Herr Schmacker; in the Lo-foo-shan Mountains by Dr. von Möllendorff; at Low-da on the Yung-fu River, province of Fukien, by the writer.

Helix (an *Cochlostyla* ?) **xanthoderma**, von Mlldff.

A. typus? Diam. maj. 50, min. 43, alt. 45 mm.

Habitat ad Montem Ma-on-shan, provinciæ sinensis Kuang-tung.

B. forma minor. Diam. maj. 44, min. 37, alt. 40 mm.

Habitat in insula Hongkong (Sheko).

Stenogyra (*Opeas*) **Fortunei**, Pfeiffer.

Common.

Fortune found this shell near Shanghai, and Canton, according to Reeve, in Macao (I have not found it there). There is considerable doubt whether the Hongkong *Stenogyra* is in reality *Fortunei*; that it closely approximates the typical shell is beyond question.

Stenogyra (*Opeas*) **chinensis**, Pfeiffer.

Common.

Clausilia lorraini, Mencke.

Sheko.

Tolerably abundant; confined to the Sheko Valley.

Streptaxis sinensis, Gould.

High West and Little H.

Tolerably rare. Best specimens from Little Hongkong. Found also at the Lo-foo-shan and elsewhere in the province of Kwang-tung.

Ennea bicolor, Hutton.

This shell is one of the widest-spread of the Gonospiræ, having been found in Burmah (Gould), Cochinchina (Michau), Mauritius (Benson), St. Thomas (Bland), and according to Benson, in Ceylon. Hutton first described it from Mirzapoor. In Hongkong this beautiful *Ennea* is quite rare, and has been found in Sheko by Dr. von Möllendorff.

Succinea chinensis, Pfeiffer.

Botanical Gardens.

This *Succinea* seems never to attain any large size in Hongkong. Specimens from Amoy and Swatow in the writer's collection are much better developed, and more characteristic of the species.

Macrochlamys superlita, Morelet.

Sheko.

Perfect specimens very rare, as the shell is extremely fragile.

Besides the list given above there are two *Microcystis*, as yet unnamed. One *Microcystis* (*Eastlakeana*, v. Mlldff.), found by the writer near Little Hongkong; the other tolerably common on old walls and trees throughout the N. E. portion of the island. Also one *Conulus*, from High West, undescribed.

Fresh-Water Snails.

Limnæa ollula, Benson.

Streams near L. Hongkong.

Limnæa plicatula, Benson.

Streams near L. Hongkong.

This latter species is by far the rarer of the two. A variety of *L. plicatula* has been found by Dr. v. Möllendorff and the writer on the mainland, some twenty miles from Hongkong.

Planorbis compressus, Benson.

Streams near Aberdeen.

Planorbis Cantori, Benson.

Victoria Peak.

Corticula lutea, Morelet.

Near Sheko.

Of slugs there are only two species found on the island.

Philomicus bilineatus, Benson.

Vaginulus chinensis, v. Mlldff., nova species.

Pallium supra confertim minute granulatum, obscure cinereo-fuscum, maculis pallide fusco-flavidis ad margines crebrioribus sparsum, medio striga flava parum distincta notatum, infra pallide flavogriseum, unicolor, pes flavidus. Tentacula superiora nigra, inferiora pallida.

Pallii long. 75, lat. 15; *pedis* lat. 5, *tentac.* sup. 6, inf. 3 mm. In hortis insulæ Hongkong.